AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of the claims in the application:

Listing of Claims:

1-53. (Cancelled)

54. (Currently amended) A method for detecting an infection of an acid-resistant ~~microorganism~~ bacterium belonging to the genus *Helicobacter* in a ~~mammal~~ human, comprising:

(a) incubating a stool sample of the ~~mammal~~ human with at least two different monoclonal antibodies, ~~fragments or derivatives thereof~~ or Fab-, F(ab)'$_2$, Fv-, or scFv-fragments thereof under conditions allowing formation of complexes between antigens from the acid-resistant ~~microorganism~~ bacterium and the antibodies ~~fragments or derivatives thereof~~ or Fab-, F(ab)'$_2$, Fv-, or scFv-fragments thereof, in which

(aa) a first monoclonal antibody ~~or fragment or derivative thereof~~ or Fab-, F(ab)'$_2$, Fv-, or scFv-fragment thereof specifically binds an epitope of a first antigen, which shows at least with some ~~mammals~~ humans a structure after intestinal passage that corresponds to a native structure, or a structure which a ~~mammal~~ human produces antibodies against after being infected or immunized with the acid-resistant ~~microorganism~~ bacterium, an extract or lysate thereof, protein therefrom, a fragment thereof or synthetic peptide, which epitope is the epitope of an antigen selected from the group consisting of: a urease, a heat shock protein, an alkylhydroperoxide-reductase, a 20kDa-protein, a 16.9kDa-protein and a 33.8kDa-protein;

(ab) a second monoclonal antibody ~~or fragment or derivative thereof~~ or Fab-, F(ab)'$_2$, Fv-, or scFv-fragment thereof specifically binds an epitope of a second antigen, differing from the epitope of the first antigen, which shows at least with some ~~mammals~~ humans a structure after intestinal passage that corresponds to the

native structure, or a structure which a ~~mammal~~ human produces antibodies against after being infected or immunized with the acid-resistant bacterium, an extract or lysate thereof, a protein therefrom, a fragment thereof or a synthetic peptide, in which the groups of ~~mammals~~ humans according to (aa) and (ab) may overlap, and in total essentially make up the overall number of infected, ~~mammals~~ humans, which epitiope is the epitope of an antigen selected from the group consisting of: urease, a heat shock protein, an alkylhydroperoxide-reductase, a 20kDa-protein, a 16.9kDa-protein and a 33.8kDa-protein; and

(b) detecting the formation of at least one antigen-antibody complex according to (aa) or (ab).

55. (Cancelled)

56. (Cancelled)

57. (Currently Amended) A method according to Claim [[56]] 54 wherein the bacterium is a bacterium belonging to the species *Helicobacter pylori*~~, the species *Helicobacter hepaticus*, the species *Mycobacterium tuberculosis*, or the species *Campylobacter pylori*~~.

58. (Previously presented) A method according to Claim 54, wherein the epitope of the first antigen is an epitope of a urease ~~and the epitope of the second antigen is an epitope selected from the group consisting of: a heat shock protein, an alkylhydroperoxide reductase, a 20kDa protein (3-dehydro-quinase type II), a 16.9kDa protein (neutrophilactivating protein) and a 33.8kDa protein (fructose-bisphosphate-aldolase)~~.

59. (Previously presented) A method according to Claim 58, wherein the urease is a β-urease of *Helicobacter pylori*.

60. (Previously presented) A method according to Claim 58, wherein the heat shock protein is a Hsp60.

61. (Previously presented) A method according to Claim 58, wherein the alkylhydroperoxide-reductase is the 26kDa-protein of *Helicobacter pylori*.

62. (Previously presented) A method according to Claim 54, wherein the first monoclonal antibody comprises a heavy chain having at least one of the following CDRs: SEQ ID NO:25,

SEQ ID NO:26 and SEQ ID NO:27, or SEQ ID NO:28, SEQ ID NO:29 and SEQ ID NO:30.

63. (Previously presented) A method according to Claim 62, wherein the first monoclonal antibody comprises a light chain having at least one of the following CDRs: SEQ ID NO:37, SEQ ID NO:38 and SEQ ID NO:39 or SEQ ID NO:40, SEQ ID NO:41 and SEQ ID NO:42.

64. (Previously presented) A method according to Claim 54, wherein the first monoclonal antibody is obtained from hybridoma HP9.lm/3C2-F8-E2 having accession number DSM ACC2362.

65. (Previously presented) A method according to Claim 54, wherein the second monoclonal antibody comprises a heavy chain having at least one of the following CDRs: SEQ ID NO:1, SEQ ID NO:2, and SEQ ID NO:3.

66. (Previously presented) A method according to Claim 65, wherein the second monoclonal antibody comprises a light chain having at least one of the following CDRs: SEQ ID NO:7, SEQ ID NO:8 and SEQ ID NO:9.

67. (Previously presented) A method according to Claim 54, wherein the second monoclonal antibody is obtained from hybridoma HP16m/2A5-E6-E5 having accession number DSM ACC2356.

68. (Currently amended) A method according to Claim 54, further comprising:

(a) incubating the stool sample with a third monoclonal antibody, in which

(ac)the third monoclonal antibody ~~or fragment or derivative thereof~~ or a Fab-, F(ab)'$_2$, Fv-, or scFv-fragment thereof specifically binds an epitope of a third antigen, differing from the epitope of the first and second antigen, which shows at least with ~~mammals~~ humans a structure after intestinal passage that corresponds to the native structure, or a structure which a ~~mammal~~ human produces antibodies against after being infected or immunized with the acid-resistant ~~microorganism~~ bacterium, an extract or lysate thereof, a protein therefrom, a fragment thereof or a synthetic peptide,

in which the groups of ~~mammals~~ humans according to (aa), (ab) and (ac) may overlap and in total essentially make up the overall number of infected ~~mammals~~ humans, and

(b) detecting the formation of at least one antigen-antibody complex according to (aa), (ab) or (ac).

69. (Previously presented) A method according to Claim 68, wherein the epitope of the first antigen is an epitope of a urease, the epitope of the second antigen is an epitope selected from the group consisting of: a heat shock protein, an alkylhydroperoxide-reductase, a 20kDa-protein (3-dehydroquinase type II) a 16.9k Da-protein (neutrophil-activating protein) and a 33.8kDa-protein (fructose bisphosphate aldolase), and the epitope of the third antigen is an epitope independently selected from the same group.

70. (Previously presented)A method according to Claim 68, wherein the epitope of the first antigen is an epitope of a β-urease from *Helicobacter pylori*; the epitope of the second antigen is an epitope of heat shock protein Hsp60 from *Helicobacter pylori*, the epitope of the third antigen is an epitope of 26kDa-protein (alkylhydroperoxide-reductase) of *Helicobacter pylori*.

71. (Previously presented) A method according to Claim 68, wherein the third monoclonal antibody comprises a heavy chain having at least one of the following CDRs: SEQ ID NO:13, SEQ ID NO:14 and SEQ ID NO:15.

72. (Previously presented)A method according to Claim 71, wherein the third monoclonal antibody comprises a light chain having at least one of the following CDRs: SEQ ID NO:19, SEQ ID NO:20 and SEQ ID NO:21.

73. (Previously presented)A method according to Claim 68, wherein the third monoclonal antibody is obtained from hybridoma HP15m/3E8-D9-D6 having accession number DSM ACC2355.

74. (Previously presented) A method according to Claim 54, wherein the antigen-antibody complex is detected by an immunological method selected from the group consisting of: ELISA, LISA, Western Blot or an immunochromatographic method.

75. (Previously presented)A method according to Claim 68, wherein the antigen-antibody complex is detected by an immunological method selected from the group consisting of ELISA, RIA, Western Blot or an immunochromatographic method.

76. (Previously presented) A method according to Claim 54, wherein the antibodies fragments or derivatives are fixed to a support comprising a test strip.

77. (Currently amended) A method for detecting an infection with *Helicobacter pylori* in the stool of a ~~mammal~~ human, comprising:

(a) incubating a stool sample with at least two different monoclonal antibodies, ~~fragments or derivatives thereof~~ or Fab-, F(ab)'$_2$, Fv-, or scFv-fragments thereof under conditions allowing antigen-antibody complex formation, in which

(aa) a first monoclonal antibody, ~~fragment or derivative thereof~~ or a Fab-, F(ab)'$_2$, Fv-, or scFv-fragment thereof specifically binds β-urease or a fragment thereof;

(ab) a second monoclonal antibody, ~~fragment or derivative thereof~~ or a Fab-, F(ab)'$_2$, Fv-, or scFv-fragment thereof specifically binds the 26kDa-antigen or a fragment thereof or specifically binds Hsp60 or a fragment thereof, and

(b) detecting the formation of at least one antigen-antibody complex as set out in (aa) or (ab).

78. (Previously presented) A method according to Claim 76, wherein the first monoclonal antibody comprises a heavy chain having at least one of the following CDRs: SEQ ID NO:25, SEQ ID NO:26 and SEQ ID NO:27, or SEQ ID NO:28, SEQ ID NO:29 and SEQ ID NO:30.

79. (Previously presented) A method according to Claim 77, wherein the first monoclonal antibody comprises a light chain having at least one of the following CDRs: SEQ ID NO:37, SEQ ID NO:38 and SEQ ID NO:39 or SEQ ID NO:40, SEQ ID NO:41 and SEQ ID NO:42.

80. (Previously presented) A method according to Claim 76, wherein the first monoclonal antibody is obtained from hybridoma HP9.lm/3C2-F8-E2 having accession number DSM ACC2362.

81. (Previously presented) A method according to Claim 76, wherein the second monoclonal antibody comprises a heavy chain having at least one of the following CDRs: SEQ ID NO:1, SEQ ID NO:2, and SEQ ID NO:3.

82. (Previously presented) A method according to Claim 80, wherein the second monoclonal antibody comprises a light chain having at least one of the following CDRs: SEQ ID NO:7, SEQ ID NO:8, and SEQ ID NO:9.

83. (Previously presented) A method according to Claim 76, wherein the second monoclonal

antibody is obtained from hybridoma HP16m/2A5-E6-E5 having accession number DSM ACC2356.

84. (Currently amended) A method according to Claim 76, further comprising:

(a) incubating the stool sample with (ac) a third monoclonal antibody, ~~fragment or derivative thereof~~ or a Fab-, F(ab)'$_2$, Fv-, or scFv-fragment thereof, which specifically binds 26kDa-antgen or fragment thereof; and

(b) detecting the formation of at least one antigen-antibody complex as set out in (aa), (ab) or (ac).

85. (Previously presented) A method according to Claim 84, wherein the third monoclonal antibody comprises a heavy chain at least one of the following CDRs: SEQ ID NO:13, SEQ ID NO:14 and SEQ ID NO:15.

86. (Previously presented) A method according to Claim 85, wherein the third monoclonal antibody comprises a light chain having at least one of the following CDRs: SEQ ID NO:19, SEQ ID NO:20 and SEQ ID NO:21.

87. (Previously presented) A method according to claim 84, wherein the third monoclonal antibody is obtained from hybridoma HP15m/3E8-D9-D6 having accession number DSM ACC2355.

88. (Previously presented) A method according to Claim 77, wherein the antigen-antibody complex is detected by an immunological method selected from the group consisting of: ELISA, RIA, Western Blot or an immunochromatographic method.

89. (Previously presented) A method according to Claim 84, wherein the antigen-antibody complex is detected by an immunological method selected from the group consisting of: ELISA, RIA, Western Blot or an immunochromatographic method.

90. (Currently amended) A method according to Claim 88, wherein the antibodies, ~~fragments or derivatives thereof~~ Fab-, F(ab)'$_2$, Fv-, or scFv-fragments thereof are fixed to a support comprising a test strip.

91. (Currently amended) A method according to Claim 89, wherein the antibodies, ~~fragments or derivatives thereof~~ Fab-, F(ab)'$_2$, Fv-, or scFv-fragments thereof are fixed to a support comprising a test strip.

92. (New) A method for detecting infection of an acid-resistant bacterium in a mammal, said method comprising:

contacting a stool sample from said mammal with two or more antigen-binding agents, each said antigen-binding agent being capable of specifically binding to a protein of said bacterium, and said protein being selected from the group consisting of urease, heat shock protein, alkylhydroperoxide-reductase, type II 3-dehydro-quinase, neutrophil-activating protein, and fructose-bisphosphate-aldolase; and

detecting binding of at least one of said two or more antigen-binding agents to a component of said stool sample,

wherein each of said two or more antigen-binding agents is a monoclonal antibody, a Fab, $F(ab)'_2$ or Fv fragment thereof, or a scFv molecule, and wherein said binding to a component of said stool sample is indicative of infection of said bacterium in the mammal.

93. (New) The method of claim 92, wherein said bacterium is selected from the group consisting of a *Helicobacter* bacterium, a *Mycobacterium* bacterium, and a *Campylobacter* bacterium.

94. (New) The method of claim 92, wherein said bacterium is selected from the group consisting of *Helicobacter pylori*, *Helicobacter hepaticus*, *Mycobacterium tuberculosis*, *Campylobacter jejuni*, *Campylobacter pylori*, *Chlamydia Pneumoniae*, and *Legionella pneumophilae*.

95. (New) The method of claim 92, wherein said bacterium is *Helicobacter pylori*.

96. (New) The method of claim 95, wherein each said antigen-binding agent is capable of specifically binding to a protein selected from the group consisting of β-urease, Hsp60, 26 kDa alkylhydroperoxide-reductase, 20 kDa type II 3-dehydro-quinase, 16.9 kDa neutrophil-activating protein, and 33.8 kDa fructose-bisphosphate-aldolase.

97. (New) The method of claim 95, wherein each said antigen-binding agent is a monoclonal antibody producable from a hybridoma selected from the group consisting of HP16m/2A5-E6-E5, HP15m/3E8-D9-D6, HP8m/4H5-D4-C9 and HP9.1m/3C2-F8-E2, or a Fab, $F(ab)'_2$, Fv or scFv fragment of said antibody.

98. (New) The method of claim 95, wherein the component of said stool sample binds to said two or more antigen-binding agents.

99. (New) The method of claim 95, comprising detecting binding of at least one of said two or more antigen-binding agents to another component of said stool sample, wherein said component and said another component bind to different agents selected from said two or more antigen-binding agents.

100. (New) The method of claim 95, wherein said detecting is carried out by ELISA, RIA, Western Blot, or an immunochromatographic method.

101. (New) The method of claim 95, wherein said mammal is human.